

Index

Note: Page numbers of chapter titles are in **bold face** type.

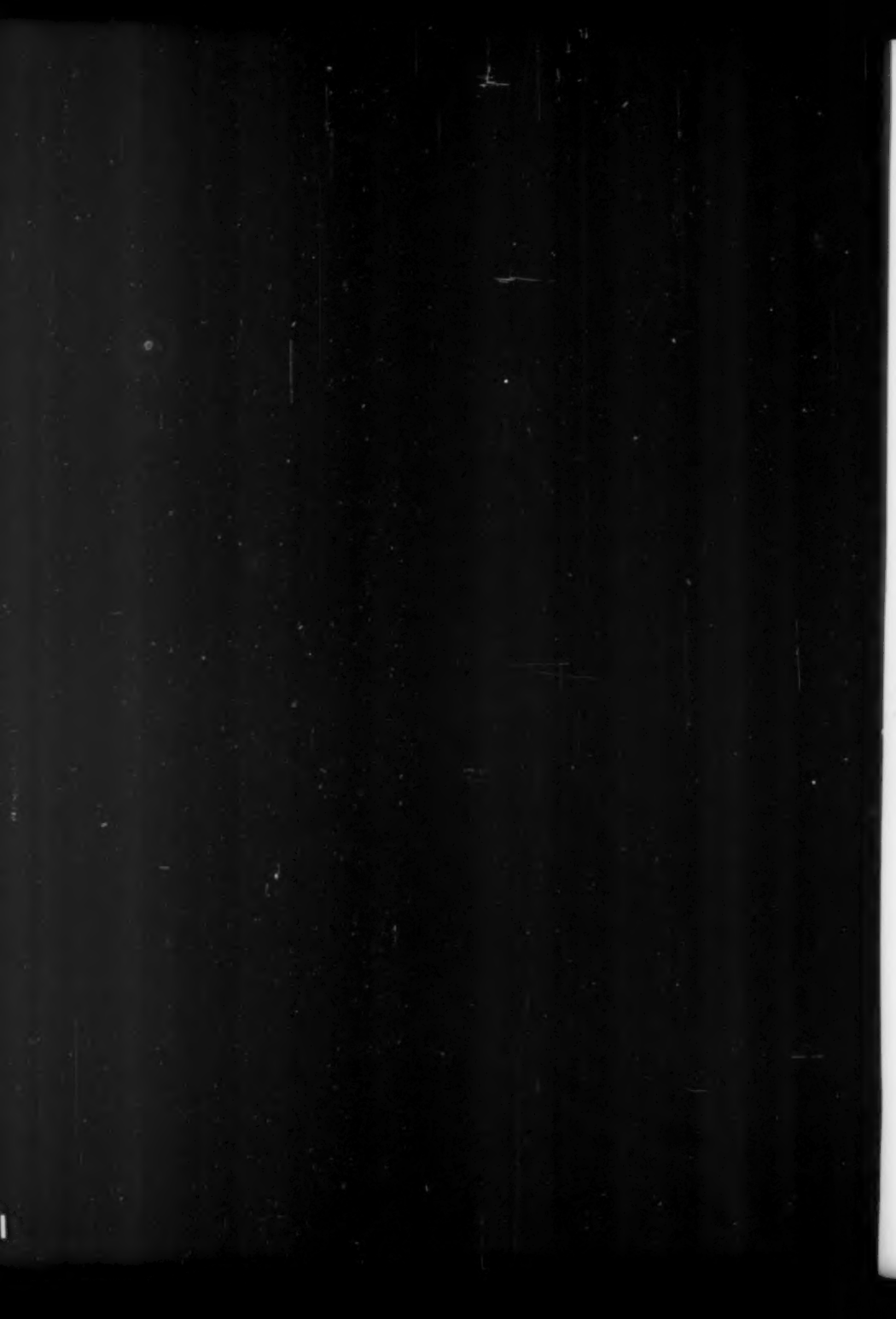
- ABNORMAL PHAGOCYTE FUNCTION**, clinical conditions associated with, 27
- Abscess of the liver, 25
- Actin dysfunction, and infection, 18
- Agar disc diffusion method, 74
- Alcoholic liver disease, 5
- Antibiotic therapy of septic arthritis, **133-152**
definitive antibiotic programme, 139
bacteriostatic and bactericidal drugs, 139
broad spectrum and narrow spectrum antibiotic drugs, 140
route of antibiotic administration, 140
drainage and surveillance, 149
fungal arthritis, chemotherapy of, 148
history and physical, 133
identification of infecting organism, 134
aspiration and examination of synovial fluid, 134
clinical indicators for identification of infection, 136
index of suspicion, 133
initial antibiotic selection, 138
passage of antibiotics into joints, 142
pharmacology of major antibiotic drugs, 143
aminoglycosides, 145
penicillins, 144
reactions of drugs, 142
susceptibility testing, 74
tuberculous arthritis, chemotherapy of, 146
- Antigens, detection of, 84
- Antimicrobial susceptibility tests, 75
- Arthritis, infectious agents of (see also Infectious arthritis) —
adenovirus, 237
synovial fluid analysis in, 237
arbovirus, 226
atypical mycobacteria, 214
fungi, 216
blastomycosis, 218
candidiasis, 219
coccidioidomycosis, 216
sporotrichosis, 218
gonococci, 40, 169
gram-negative bacilli, 192-210
characterization of, 201
predisposing factors, 198
in intravenous drug users, 198
in non-intravenous drug users, 198
Haemophilus influenzae, 206
Hepatitis B, 232
meningococci, 177
mycobacteria, 211-223, see Tuberculous arthritis
rubella, 228
vaccination and joint infection, 231
Salmonella, 206
Serratia, 200
viruses, **225-240**, see Viral arthritis
Yersinia, 206
Aspergillus, 5
Assessment of host defences, 12
Azurophilic granules, 15
- BACTERAEMIA**, 4
Bacteria, catalase positive, 5
Bacterial arthritis, pathological findings in, 34
Bacterial endocarditis, 41
Blastomycosis, 45, 218
Brodie's abscess, 106, 108
Broth cultures, 66
Brucellosis, 42
- CANDIDA**, 5
Candidiasis, 219
Carcinoma of the lung, 5
Cartilage destruction, mechanism of, 56
Chediak-Higashi syndrome, 5, 23, 26
diagnosis of, 23
Chemotactic stimuli, defective response to, 5, 23
Chronic lymphocytic leukaemia, associated with hypogammaglobulinaemia, 7
Coccidioidomycosis, 44, 216
Complement, primary disorders of, associated with infection, 4
Congenital thymus aplasia, 8

- Counterimmunoelectrophoresis, in detection of antibodies, 87
in diagnosis of infectious arthritis, 88
- Cryptococcus neoformans, demonstration of, 65
- DEFECTS IN HOST DEFENCE MECHANISMS that predispose to infection, 3-13, see Host defence mechanisms
- Dermatitis, 4
- DiGeorge syndrome, 8
- Disease states associated with defect in host defences, 11
- E. CHOLI, 5, 197
- Eczema, 4
- FASTIDIOUS BACTERIA, growth of, 66
- Felty's syndrome, 4
- Fungal arthritis —
blastomycosis and, 218
chemotherapy of —
amphotericin B, 148
5-fluorocytosine, 149
candidiasis and, 219
coccidioidomycosis and, 216
identification of infectious agents, 10, 44, 65, 220
sporotrichosis and, 218
- GAS CHROMATOGRAPHY, detection of microbial metabolites, 83
diagnosis of infectious arthritis, 88
- Glucose-6-phosphate dehydrogenase deficiency, 5
- Glutathione peroxide deficiency, in girls, 5
- Gonococcal and meningococcal arthritides, 169-180
diagnosis, 173-174
importance of choice of culture medium, 173
gonococcal arthritis, 40, 169
clinical spectrum of, 170
general characteristics, 170
joints and periarticular lesions, 172
miscellaneous features, 173
pathogenesis of inflammation, 173
skin lesions, 171
treatment of, 175
antibiotic regimens, 176
joint drainage, 176
meningococcal arthritis, 177
- Gram-negative bacilli, arthritis due to, 197-210, see Arthritis, infectious agents in
- Granulomatous disease of childhood, chronic, 25
- HAEMOPHILUS INFLUENZAE, 7
and arthritis, 206
in children, 63
infections, 10
requirements for cultivation, 68
- Herpes virus infections, 10
- Hexose monophosphate shunt activation, 9
- Histoplasmosis, 9
differentiation from tuberculosis, 46
- Hodgkin's disease, 5, 8, 10
- Host defence mechanisms, defects that predispose to infection, 3-13
assessment of host defences, 12
lymphocytes, 6
mononuclear phagocytes, 9
neutrophils, 3
relevance of specific defects to infection, 10
- Hypogammaglobulinaemia, 3
X-linked, 6
- IMMUNODEFICIENCY DISEASE —
primary, 6, 7
manifestations of, 8
- Immunoglobulin, 6
- India ink, use with wet mounts of cultures, 65
- Infection, predisposition to, due to defects in host defence mechanisms, 3-13, see Host defence mechanisms
- Infectious arthritis —
aetiology of, in children, 136
agents of —
adenovirus, 237
synovial fluid analysis in, 237
arbovirus, 226
atypical mycobacteria, 214
fungi, 216
blastomycosis, 218
candidiasis, 219
coccidioidomycosis, 216
sporotrichosis, 218
gonococci, 40, 169
gram-negative bacilli, 192-210
characterization of, 201
predisposing factors, 198
Haemophilus influenzae, 206
Hepatitis B, 232
meningococci, 177
mycobacteria, 211-223, see Tuberculous arthritis
rubella
vaccination and joint infection, 231
Salmonella, 206
Serratia, 200
viruses, 225-240, see Viral arthritis
Yersinia, 206
antibiotic therapy for, 133-149, see Antibiotic therapy

- joint pathology in, 33-50, *see* Joint pathology
- mechanisms of inflammation in, 51-61, *see* Mechanisms of inflammation
- microbial antigens in, 83-93, *see* Microbial antigen
- microbiology laboratory in diagnosis of, 63-82, *see* Microbiology laboratory
- non-antibiotic aspects of treatment, 153-158
 - drainage, 155
 - immobilization, 153
 - joint positions for optimal functioning, 154
 - long-term rehabilitation, 156
 - rehabilitation treatment in the acute phase, 154
- nucleographic approaches to diagnosis, 110
- methodology, 112
- radiobiology of radionuclide uptake, 110
- radiology in, 95
 - infected prostheses, 100
 - pre-existing inflammatory arthritis, 95
 - pyogenic infections of sacroiliac joints, 102
 - tuberculous arthritis, 100
- surgery in, 159-168
 - establishing a bacterial diagnosis, 159
 - guidelines for surgical intervention, 160
 - hinge arthroplasty of the knee, 164
 - infections following joint replacement, 162
 - delayed infections in prosthetic joints, 163
 - early postoperative infection, 162
 - natural history of the infected artificial joint, 163
 - natural history of the infected prosthesis with loosening, 165
 - prevention of cartilage loss, 160
 - special case of a paediatric hip, 161
 - total joint replacement after infection, 166
- Infectious synovitis, immunological factors in, 54
- JOINT PATHOLOGY in infectious arthritis, 33-50
 - experimental studies, 39
 - features seen with specific organisms and situations, 40
 - bacterial endocarditis, 41
 - brucellosis, 42
 - fungal infections, 44
 - gonococcal and meningococcal arthritis, 40
 - infections superimposed on rheumatoid or other chronic synovitis, 41
 - syphilis, 46
 - tuberculosis, 44
 - viral infections, 46
- pathological findings in bacterial arthritis, 34
 - cartilage and bone, 39
 - synovium, 34
- technique for biopsy and handling of tissue, 33
- LANCIEFIELD GROUP, testing in identification of streptococci, 69
- Leprotomous leprosy, 9
- Leucocytes —
 - adherence, 5
 - defective function in, 3
 - delineation of function of, 10
- Lymphocytes —
 - primary combined B- and T-cell disorders, 8
 - T-cell disorders, 8
- Lymphokines, 7
- Lymphoma, non-Hodgkins, associated with hypogammaglobulinaemia, 7
- MACROPHAGE DYSFUNCTION, patients with, 10
- Mechanisms of inflammation in infectious arthritis, 51-61
 - changes in synovial fluid chemistry, 57
 - synovial fluid findings in septic arthritis, 58
- immunological factors in infectious synovitis, 54
- mechanisms of cartilage destruction, 56
- tissue damage by microbial factors, 51
 - bacterial enzymes, 53
 - chemotactic factors, 54
 - endotoxins, 53
 - exotoxins, 51
- Meningococcal arthritis, 40
- Meningococcal infections, 10
- Microbial antigen in infectious arthritis, 83-93
 - correlation between antigenaemia and prognosis, 90
 - counterimmunoelectrophoresis in detection of antibodies, 87
 - detection of antigens, 84
 - counterimmunoelectrophoresis, 85
 - haemagglutination inhibition, 85
 - latex agglutination, 84
 - radioimmunoassay, 85
 - detection of microbial metabolites by gas chromatography, 83
 - newer diagnostic procedures, 84
 - newer methods in diagnosis of infectious arthritis, 88
 - gas chromatography, 88

- Microbial antigen in infectious arthritis (*cont.*)
 possible role of pneumococcal antigen-antibody complexes in arthritis, 91
 special problems with serology of gonorrhoea, 87
- Microbial killing, disorders of, 25
- Microbial-phagocytic interactions, 15-32
 disorders of chemotaxis, 23
 disorders of microbial killing, 25
 metabolic events associated with intracellular killing of bacteria, 21
- opsonins, 16
 oxidative metabolism during phagocytosis, 20
 phagocytic cells in the inflammatory response, 15
 phagocytosis, 18
- Microbiology laboratory in diagnosis of infectious arthritis, 63-82
 antimicrobial activity of serum and synovial fluid, 78
 bacterial agents of septic arthritis, 63
 correlation of bacterial cause with age, 64
 collection of specimens and transport, 64
 direct stains and wet mounts of aspirated fluid, 64
 identification of bacterial and fungal isolates, 69
 protein binding of antimicrobial agents, 77
 recovery and identification of infectious agents, 66
 serological identification of microbial isolates, 73
 susceptibility testing, 74
- Monocytes, proliferation of, diseases associated with, 10
- Mononuclear phagocytes, delineation of function of, 10
- Mycobacteria, 10, 44, 146
- Mycobacterial arthritis, atypical, 214
- Myeloperoxidase, 4
 deficiency of, 5
- Multiple myeloma, associated with hypogammaglobulinaemia, 7
- NEEDLE SYNOVIAL BIOPSY, 33
- Neisseria gonorrhoeae*, as a cause of arthritis, 40, 63, 169-176, *see also* Gonococcal arthritis
 requirements for cultivation, 68
- Neutropenia, induced by cytotoxic therapy, effect of, 10
 level of, associated with repeated infections, 4
- Neutropenic leukaemia, 4
- Neutrophils, 3
 chemotaxis, defective, patients with, 24
 dysfunction, induced by therapeutic measures, 26
- Non-antibiotic aspects of treatment in infectious arthritis, 153-158, *see* Infectious arthritis
- Nucleographic approaches to the diagnosis of septic arthritis and osteomyelitis, 110
 methodology, 112
 radiobiology of radionuclide uptake, 110
- OPSONINS, 16
 coating on bacteria, 3
 Opsonization, molecular events in, 17
- Osteomyelitis, 25
 nucleographic approaches to diagnosis, 110
 radiology in, 103
 skeletal nucleography in diagnosis of, 117
- PARAPROTEINAEMIAS, associated with hypogammaglobulinaemia, 7
- Perirectal abscess, 4
- Phagocyte function, abnormal, clinical conditions associated with, 27
- Phagocytic mononuclear cell, defective function in, 3
- Phagocytosis, oxidative metabolism during, 20
- Phagolysosome, formation of, 3
- Pharyngeal infection, 4
- Pneumonia, 4
- Pneumococcal infections, 10
Pneumococcus, capsular polysaccharide of, 7
Pneumocystis carinii infections, 10
- Polyarthritis, epidemic, 46
- Polymorphonuclear leucocytes, primary disorders of, associated with infection, 4
 leucocyte defects, patients with, 10
- Primary combined B-cell and T-cell disorders, 8
- Protein calorie malnutrition, 26
- Pseudomonas*, 5, 197
- Pyarthrosis, in adults with rheumatoid arthritis, 186
 radiology as an adjunct to diagnosis in severe clinical settings, 99
- Pyogenic arthritis in animal models, 39
- Pyogenic infections, following from hypogammaglobulinaemia, 3
- RADIOGRAPHIC AND NUCLEOGRAPHIC TECHNIQUES, 95-131
 newer nucleographic approaches to diagnosis of infections in osseous disease, 127
 nucleographic approaches to diagnosis of septic arthritis and osteomyelitis, 110

- methodology, 112
- radiobiology of radionuclide uptake, 110
 - gallium-67-citrate, 112
 - properties of radionuclides in bone-imaging, 111
 - technetium-99m-phosphates,
- radiology in osteomyelitis, 103
 - bone infection-bone infarction, 109
 - chronic osteomyelitis, 105
 - osteomyelitis in the diabetic, 109
 - tuberculous osteomyelitis, 105
- radiology in septic arthritis, 95
 - infected prostheses, 100
 - pre-existing inflammatory arthritis, 95
 - pyogenic infections of sacroiliac joints, 102
 - tuberculous arthritis, 100
- Rheumatoid or other chronic synovitis, infection imposed upon, 41
- Rubella vaccination arthritis, joints affected, 231
- SEPTIC ARTHRITIS, see Infectious arthritis**
- Serratia*, 197
 - arthritis, results of drug therapy in, 200
 - S. marcescens*, 5
- Serum antimicrobial activity, 79
- Sickle-cell disease, frequency of osteomyelitis in, 109
- Sinopulmonary infections, recurrent, 7
- Sporotrichosis, 45, 218
- Staphylococcal and other gram-positive coccal arthritides, **181-196**
 - gram-positive septic arthritis in children, 181
 - clinical comments, 183
 - gram-positive septic arthritis in adults without arthritic disease, 184
 - pyarthrosis in adults with rheumatoid disease, 186
 - clinical features, 188
 - septic arthritis in adults with rheumatoid disease, 187
 - theoretic considerations, 189
- Staphylococcus aureus*, 4, 5, 63, 69, 181
- Staphylococcus epidermidis*, 5, 69
- Streptococcus pneumoniae*, 63, 69
- Surgery in infectious arthritis, 159-168
 - guidelines for surgical intervention, 160
 - hinge arthroplasty of the knee, 164
 - infections following joint replacement, 162
 - delayed infections in prosthetic joints, 163
 - early postoperative infection, 162
 - natural history of the infected joint, 163
 - total hip replacement after infection, 166
- Synovial fluid —
 - analysis in rubella arthritis, 229
 - aspiration and examination, 134
 - bacteria isolated in adults with septic arthritis, 198
 - chemistry in infectious arthritis, changes in, 57
 - optimal culture methods for identification, 135
- Syphilis, 46
- THAYER-MARTIN MEDIUM, 68**
- Tissue damage by microbial factors, 51
 - bacterial enzymes, 53
 - chemotactic factors, 54
 - endotoxins, 53
 - exotoxins, 51
- Toxoplasma gondii* infections, 10
- Transport of specimens, 64
- Tuberculosis, 9, 44
- Tuberculous arthritis, chemotherapy of, 146
 - ethambutol, 147
 - isoniazid, 147
 - rifampicin, 147
- VIRAL ARTHRITIS, 225-240**
 - adenovirus arthritis, features of, 237
 - adenovirus-7 arthritis, synovial fluid analysis, 237
 - arboviral arthritis, 226
 - hepatitis-B arthritis, 232
 - features of, 232
 - selected studies of, joints affected, 233
 - serum analysis, 236
 - synovial fluid analysis, 234
 - pathogenesis of, 225
 - rubella arthritis, 228
 - features of, 228
 - joints affected, 229
 - synovial fluid analysis, 230
- Visceral abscesses, 4
- WHITE BLOOD CELLS, defective function in, 3**



Index

Note: Page numbers of chapter titles are in **bold face** type.

- ARTHRITIS**, *see also* Rheumatoid arthritis
childhood, **425-442**
classification of, 425-426
conservative orthopaedic measures in, 434-435
contra-indications for surgery in, 433-434
general symptomatology, 426-430
histological examination of, 430
psychogenic problems in, 430-432
radiological examination of, 426-429
surgical possibilities in, 432-433
surgical requirements for, 435-441
- Arthrodesis, 332, 341, 389, 440
Arthropathy, analgesic, 367-368
Arthroplasty, 389, 438-439
excisional, 396-398, 399
humeral head replacement, 399
total replacement, 396, 399-400
- Avascular necrosis, of femoral head, **347-373**
clinical features of, 347-348
conditions resembling, 366-368
analgesic arthropathy, 367-368
pathology of, 351-356
bone death, 352
bone dissolution, 366
osteonecrosis, 353-366
radiographic features of, 348-351
treatment of, 368-370
high-demand patients, 369
low-demand patients, 368-369
vascular decompression, 369-370
- BOUTONNIERE** deformity, 412
- CHILDHOOD** arthritis, *see* Arthritis, childhood
Chromosome damage, in radiosynoviorthesis, 316-318
Corticosteroids, in induction of osteonecrosis, 364-365
- DEFORMITY**, 267
Drug therapy, for arthritic patients, 256-257
Dysbaric necrosis, 357-361
- ELBOW** —
assessment of rheumatoid arthritis in, 271-273
surgery on, **385-402**
arthroplasty, 396-398
synovectomy, 393-396
- FEMORAL HEAD**, avascular necrosis of, **347-373**
Foot, rheumatoid, *see* Rheumatoid foot
- GAIT**, analysis of, 280
Gaucher's disease, 363-364
- HALLUX VALGUS**, 463-465
Hand, rheumatoid, *see* Rheumatoid hand
Hip —
articular materials for, 333-336
metal-on-metal, 333-334
metal-on-plastic, 335-336
metal sensitivity, 334-335
assessment of rheumatoid arthritis in, 277-279, 330-332
normal joint, 328-330
replacement, 333-336
surgery, 332-333, **375-384**
biomechanical considerations, 327-346
historical aspects, 375-376
intraoperative complications, 377
postoperative sorrows, 377-381
preoperative preparation, 376
successes, 381-382
Histological examination, in childhood arthritis, 430
- JOINT** —
radiographic appearance of, 267-268
cartilage destruction, 268
skeletal collapse, 268
synovial proliferation, 268
stiffness, 266-267
synovial, 327-328

KNEE —

- assessment of rheumatoid arthritis in, 279–280
 - chart for, 281–283
- normal joint, 336–339
- pathological joint, 339–340
- replacement of, 343–344
- rheumatoid, surgical treatment of, 340–342
 - biomechanical considerations, 327–346

MACINTOSH ARTHROPLASTY, 342**ORTHOPAEDIC SURGERY—**

- aims of, 250–251
 - improvement in appearance, 251
 - improvement in function, 250
 - relief of pain, 250–251
- assessment of results of, 265–286
 - chart for, 281–283
 - extent of the local disease, 266–268
 - lower limb, 277–280
 - methods for, 268–280
 - the patient, 265–266
 - upper limb, 269–277
- biomechanical considerations in, 327–346
- consequences of inaction, 473–474
- financial aspects of, 472–473
 - cost influences, 472–473
 - cost of non-surgical treatment, 472
- for childhood arthritis, 425–442
 - contra-indications, 433–434
 - conservative orthopaedic measures, 434–435
 - criteria and classification of, 425–426
 - general symptomatology of, 426–430
 - histological examination in, 430
 - nursing problems, 437
 - possibilities of, 432–433
 - postoperative requirements, 435–436
 - preoperative preparation, 435
 - psychogenic problems, 430–432
 - radiological examination of, 426–429
 - surgical procedures, 437–441
 - technical problems, 436–437
- future prospects, 469–476
 - epidemiology, 470
 - signs of a problem, 470–472
 - technical problems, 474–475
- general considerations, 253–258
 - drug therapy, 256–257
 - patient handling and intubation, 256
 - patient's health, 253–254
 - patient's local disease, 254
 - thromboembolism, 257–258
 - wound healing, 254–256
- medical implications of, 249–263
 - on the hip, 375–384
 - historical aspects of, 375–376
 - interoperative complications, 377

postoperative sorrows, 377–381

preoperative preparation, 376

successes, 381–382

patient assessment in, 251–253

evaluation of polyarthritis, 252

family response, 253

local joint disease, 252

patient's mental response, 253

patient's requirements, 251

prophylactic, 386

selection of operative procedures, 386–387

technical considerations, 258–261

infection of a prosthetic joint, 260–261

previous operations, 258–259, 260

results required, 259

state of skin, 259–260

use of a tourniquet, 259

technical problems, 474–475

upper limb, 385–402

Osteonecrosis, 353–366

after fracture of the femoral neck, 356–357

alcohol-induced, 365–366

corticosteroid-induced, 364–365

dysbaric necrosis, 357–361

Gaucher's disease and, 363–364

idiopathic necrosis of femoral head, 366

sickle-cell disease and, 361–363

Osteotomy, 342

corrective, 439

upper femoral, 332

Outpatients, surgery on, 441

PAIN, 266

relief of by surgery, 250–251

Patellectomy, 342

Patient, assessment of for surgery, 251–253

Polyarthritis, evaluation of, 252

Prosthetic joint, infection of, 260–261

Pseudoarthrosis, 333

Psychogenic problems, in childhood arthritis, 430–432

RADIOCOLLOIDS, in treatment of radio-synoviorthesis—

controlled trials of, 318–321

distribution of after injection, 312–314

dosimetry, 314–315

safety in use of, 314–315

selection of, 312–315

Radiological examination, in childhood arthritis, 426–429

Radiosynoviorthesis, 311–326

assessment of, 323–324

chromosomal damage and, 316–318

extra-articular spread of isotope in, 315–316

injection techniques, 324

- Radiosynoviorthesis**(*contd.*)
 radiocolloids for, selection of, 312-315
 selection of patients for, 321-323
 diseases treated, 322-323
 for second injections, 323
- Radiotherapy**, intra-articular, side effects of, 320-321
- Rheumatoid arthritis**, *see also* Orthopaedic surgery—
 chronic, cervical spine in, **443-459**
 anatomy of, 443-448
 atlanto-axial subluxation, 450-452
 dorsal column impairment, 455
 pain in, 456
 sub-axial instability, 455-456
 sub-foraminal instability, 443-447
 treatment of, 456-457
 disease staging in, 385-386
 physical signs of, 267
 radiographic appearance of the joints in, 267-268
 symptoms of, 266-267
- Rheumatoid hand**, **403-433**
 assessment of, 275-277
 associated sequelae, 413-415
 steroid hand, 414
 vasculitis, 413-414
 deformities in, 407-413
 boutonniere, 412
 carpometacarpal joint, 407-408
 chain reaction to, 414-415
 digital metacarpophalangeal joint, 408-409
 first metacarpophalangeal joint, 408
 proximal interphalangeal joint, 409
 swan's neck, 412
 synovial involvement in, 407
 tendon involvement in, 412-413
 joint involvement, 406
 articular cartilage, 406
 bone involvement, 406
 ligament involvement, 406
 prophylactic surgery, 417-418
 reconstructive surgery, 420-422
 reparative surgery, 418-420
 intrinsic snap, 419
 repair of ulna drift, 419
 treatment, 419-420
 salvage, 422
 surgical assessment of, 415-422
 contra-indications, 416
 general assessment, 416
 hand assessment, 415-416
 patient selection, 415
 surgical objectives, 416-422
 symptomatic surgery of, 416-417
 synovial involvement, 403-405
 in joints, 403-404
 in tendons, 404-405
- Rheumatoid foot**, surgical management of, **461-467**
 ankle joint, 466-467
 cock-up toes and prominent metatarsal heads, 461-462
 hallux valgus, 463-465
 hammer toes and cock-up toes, 462-463
 mid foot and hind foot, 465-466
- SHOULDER**—
 assessment of rheumatoid arthritis in, 270-271
 surgery on, **385-402**
 arthrodesis, 399
 arthroplasty, 399-400
 excisional arthroplasty, 399
 Sickle-cell disease, 361-363
 Skin, effects of rheumatoid arthritis on, 259-260
- Spine**—
 cervical, in chronic rheumatoid arthritis, **443-459**
 anatomy of, 443-448
 atlanto-axial subluxation, 450-452
 dorsal column impairment, 455
 pain, in, 456
 sub-axial instability, 455-456
 sub-foraminal instability, 443-447
 treatment of, 456-457
 surgery on, 440-441
 Surgery, *see* Orthopaedic surgery
 Swan's neck deformity, 412
 Synovectomy, 287-309, 332, 341-342, 437-438
 assessment of, 289-291
 controlled trials of, 292-305
 clinical material, 297-298
 operative and postoperative procedure, 298-299
 results of, 299-301
 dorsal, 392
 flexor, 392-393
 history of, 287-289
 lower extremities, 438
 upper extremities, 437-438
 with excision of radial head, 393-396
 Synovial joints, 327-328
 Synovitis—
 acute, 404, 404-405
 fibrosing, 404, 405
 nodular, 405
 proliferating, 404, 405
- TEMPOROMANDIBULAR JOINT**, surgery on, 440-441
 Tenotomy, 440
 Thromboembolism, from orthopaedic surgery, 257-258
 Tourniquet, use of, 259

VASCULITIS, 413-414

WOUND HEALING, in arthritic patients,
254-256

Wrist—

assessment of rheumatoid arthritis in,
273-274

surgery on, **385-402**

arthrodesis, 389

arthroplasty, 389

excision of the lower end of the ulna with
synovectomy, 388-389

operative procedures, 392-393

tendon sheath involvement, 392-393





Index

Note: Page numbers of article titles are in **bold face type**.

- ABNORMAL** immunoregulation, in rheumatoid arthritis, 577-581
- Abnormal T-B cell interaction, causing a lupus erythematosus-like syndrome, **587-602**
- Abortion, clonal, 540-542
- Alloantigens, differentiation, as models of self-tolerance, 542-543
- Animal GVHR, 588-595
- Ankylosing spondylitis and immune complexes, 630
- Antibody—
antilymphocyte—
and disease activity, 650-652
and neuropsychiatric disease, 652-655
cellular interactions in production of, **481-497**
lymphocytotoxic, 644-648
non-cytotoxic antilymphocyte, 648-650
production, cellular interactions in, **481-497**
responses—
control of the major histocompatibility complex, 492-495
role of the MHC in, 492-495
suppression of, and tolerance, 489-492
T helper cell factors, and T-cell-macrophage-B-cell interactions, 486-489
- Antigen processing, role of the macrophage in, 505-506
- Antigen reprocessing by macrophages, 544-545
- Antilymphocyte antibodies—
and disease activity, 650-652
and neuropsychiatric disease, 652-655
non-cytotoxic, 648-650
- Antilymphocyte/antineuronal autoantibodies, pathogenetic implications of, 655-656
- Arthritis, rheumatoid, 634-636
abnormal immunoregulation in, 577-580
and autoimmunity and infection, **565-586**
- exemplifying the interaction of immunocompetent cells and chronic inflammation, **517-537**
and immune complexes, 627-630
matrix degradation in, 519
viral models for the pathogenesis of, 569-577
- Autoantibodies—
antilymphocyte/antineuronal, pathogenetic implications of, 655-656
to double-stranded DNA in GVH F₁ mice, 591
formation of, 597
to lymphocyte membrane antigens, 643-659
to nuclear antigens in GVH F₁ mice, 590-591
- Autoantibody formation during GVHR—
pathological conditions caused by, 589-592
principle of, 588-589
- Autoimmune complex glomerulonephritis, and serum sickness syndrome of GVH F₁ animals, 591-592
- Autoimmunity—
and infection and rheumatoid arthritis, **565-586**
mechanisms of, 545-546
and self-tolerance, new ideas about, **539-548**
- BACTERIA**, intracellular, and viruses, cell-mediated immunity to, **549-563**
- B-cell—
and T-cell co-operation, hapten-carrier effects in, 482-483
-macrophage-T-cell interactions in the antibody response: T helper cell factors, 486-489
- Biological properties of immune complexes, 617-618
detection methods based on, 622-627
Biological roles of the complement pathway, 605-606

- C2 deficiency, 608-613
 and disease, 611-613
 and HLA linkage, 608-611
 inherited deficiency of, **603-615**
- Cell-derived chemotactic factors, 504-505
- Cell growth, and prostaglandins and cyclic AMP, 530-533
- Cell interactions—
 in the humoral response,
 in the induction of T helper cells, 485-486
 in vitro technology for examining, 484-485
- Cell-mediated immunity, **549-563**
 nature of, 549-550
- Cells—
 of the rheumatoid synovium, 519-522
 synovial, collagenase- and prostaglandin-producing, 522-526
- Cellular interactions—
 in antibody production, **481-497**
 in the humoral immune response, 481-485
- Chemotactic factors—
 cell-derived, 504-505
 complement derived, 502-503
- Chronic graft-versus-host reaction, **587-602**
- Chronic inflammation, and immunocompetent cells, **517-537**
- Clonal abortion, 540-542
- Collagenase-producing synovial cells, 522-526
- Complement—
 -derived chemotactic factors, 502-503
 genetics, 606-607
 pathway, 603-607
- Complement activation and immune complexes, in rheumatic diseases, 632-636
- Connective tissue destruction, mediators in, 527-528
- Constituent proteins, 603-605
- Coombs'-positive haemolytic anaemia of GVH F₁ mice, 589-590
- Cyclic AMP, and prostaglandins and cell growth, 530-533
- Cytotoxic T cells, a cautionary note concerning, 545
- DEFICIENCY, of C2, 608-613
- Detection methods—
 based on biological properties of immune complexes, 622-627
 based on physical properties of immune complexes, 620-622
 for soluble immune complexes, 620-627
- Differentiation alloantigens, as models of self-tolerance, 542-543
- Disease activity and antilymphocyte antibodies, 650-652
- Disease and C2 deficiency, 611-613
- Distribution, population 608
- EFFECTS and fate of immune complexes, 618-620
- FATE and effects of immune complexes, 618-620
- Formation of autoantibodies, 597
- GENETICS, of complement, 606-607
- GVH F₁ animals—
 autoimmune complex glomerulonephritis and serum sickness syndrome of, 591-592
 other pathological symptoms of, 592-593
 serum sickness syndrome of, 592
- GVH F₁ mice—
 autoantibodies to double-stranded DNA in, 591
 autoantibodies to nuclear antigens in, 590-591
 Coombs'-positive haemolytic anaemia of, 589-590
- GVHR—
 animal, 588-595
 lymphomagenesis during, 593-595
 pathological conditions caused by autoantibody formation during, 589-592
 principle of autoantibody formation during, 588-589
- HAPTEN-carrier effects, in T- and B-cell co-operation, 482-483
- HLA linkage—
 and C2 deficiency, 608-611
 and rheumatic disease associations, **603-615**
- Humoral immune response, cellular interactions in, 481-485
- Humoral response, cell interactions involved in, and in vitro technology, 484-485
- Hydrolases, 507
- IMMUNE complexes—
 and ankylosing spondylitis, 630
 biological properties of, 617-618
 and complement activation in rheumatic diseases, 632-636
 detection methods based on biological properties of, 622-627
 detection methods based on physical properties of, 620-622
 fate and effects of, 618-620
 relevance in rheumatic diseases, 627-632
 and rheumatoid arthritis, 627-630
 and rheumatic diseases, **617-642**
 soluble, methods for the detection of, 620-627

Immune complexes (*contd.*)

and systemic lupus erythematosus, 631-632

Immune response, humoral, cellular interactions in, 481-485

Immunity—

cell-mediated, **549-563**

nature of, 549-550

Immunocompetent cells, and chronic inflammation, **517-537**

Immunological surveillance, and specificity for the major histocompatibility complex, 552-554

Immunoregulation, abnormal, in rheumatoid arthritis, 577-581

Immunoregulatory products, 508

Infection, and autoimmunity and rheumatoid arthritis, **565-586**

Inherited deficiency of C2, **603-615**

Interactions, cellular—

in antibody production, **481-497**

in the humoral immune response, 481-485

Intracellular bacteria and viruses, cell-mediated immunity to, **549-563**

In vitro technology, and cell interactions in the humoral response, 484-485

LUPUS erythematosus-like syndrome, caused by abnormal T-B cell interaction, **587-602**

Lymphocyte membrane antigens, autoantibodies to, **643-659**

Lymphocytes and monocytes, interactions between, 528-530

Lymphocytotoxic antibody, 644-648

Lymphomagenesis, 597-599

during GVHR, 593-595

MACROPHAGE—

mechanisms of accumulation and activation, 502-505

role in antigen processing, 505-506

role in antigen reprocessing, 544-545

role in rheumatic diseases, **499-515**

as a secretory cell, 506-508

-T-cell-B-cell interactions in the antibody response: T helper cell factors, 486-489

-T-cell interactions, 485-486

Major histocompatibility complex—

antibody responses under the control of, 492-495

role in T-B co-operation, 483-484

specificity for, and immunological surveillance, 552-554

Matrix degradation, in rheumatoid arthritis, 519

Mechanisms of autoimmunity, 545-546

MHC—

components, recognition of, 555-558

role in antibody responses, 492-495

structures, self, T-cell reactions towards, 595-597

Model—

for macrophage role in rheumatic diseases, 508-510

for T-cell recognition, 558-559

Monocytes and lymphocytes, interactions between, 528-530

Mononuclear phagocyte system, 500-502

NEUROPSYCHIATRIC disease and anti-lymphocyte antibodies, 652-655

Non-cytotoxic anti-lymphocyte antibodies, 648-650

PATHOGENESIS—

of rheumatoid arthritis, viral models for, 569-577

T-cell reactions towards self MHC structures and, 597-599

Pathogenic implications—

of antilymphocyte/antineuronal autoantibodies, 655-656

of autoantibodies to lymphocyte membrane antigens, **643-659**

Pathological conditions, caused by autoantibody formation during GVHR, 589-592

Pathological symptoms, other, of GVH F₁ animals, 592-593

Physical properties of immune complexes, detection methods based on, 620-622

Population distribution, 608

Programmed self-tolerance, 543-544

Prospectus, role of macrophages in the rheumatic diseases and, 510-511

Prostaglandin-producing synovial cells, 522-526

Prostaglandins, 507-508

and cyclic AMP and cell growth, 530-533

Proteins, constituent, 603-605

RECOGNITION of MHC components, 555-558

Rheumatic disease associations, and HLA linkage, **603-615**

Rheumatic diseases—

complement activation and immune complexes in, 632-636

conceptual model for the role of macrophages in, 508-510

and immune complexes, **617-642**

role of macrophages in, **499-515**

Rheumatoid arthritis, 634-636

abnormal immunoregulation in, 577-581

and autoimmunity and infection, **565-586**

- Rheumatoid arthritis (*contd.*)
 exemplifying the interaction of immunocompetent cells and chronic inflammation, **517-537**
 and immune complexes, 627-630
 matrix degradation in, 519
 viral models for the pathogenesis of, 569-577
- Rheumatoid synovium, cells of, 519-522
- SELF MHC structures—
 T-cell reactions towards, 595-597
 and pathogenesis of diseases, 597-599
- Self-tolerance—
 and autoimmunity, new ideas about, **539-548**
 differentiation alloantigens as models of, 542-543
 programmed, 543-544
- Sensitizing drugs, causing diseases, 597-599
- Serum sickness syndrome, and autoimmune complex glomerulonephritis of GVH F₁ animals, 591-592
- Soluble immune complexes, methods for the detection of, 620-627
- Specificity for virus, 551-552
- Spondylitis, ankylosing, and immune complexes, 630
- Suppressor T cells, an SOS system, 542
- Synovial cells, collagenase- and prostaglandin-producing, 522-526
- Systemic lupus erythematosus, 633-634
 and immune complexes, 631-632
- T- and B-cell co-operation—
 hapten-carrier effects in, 482-483
 role of the major histocompatibility complex in, 483-484
- T-B cell interaction, abnormal, causing a lupus erythematosus-like syndrome, **587-602**
- T-cell—
 and B-cell co-operation, hapten-carrier effects in, 482-483
 cytotoxic, a cautionary note concerning, 545
 -macrophage-B-cell interactions in the antibody response: T helper cell factors, 486-489
 -macrophage interactions, 485-486
 and pathogenesis of diseases, 597-599
 reactions, towards self MHC structures, 595-597
 receptors, 554-559
 recognition, models for, 558-559
 specificity, the problem of, 550-554
 suppressor, an SOS system, 542
- T helper cell factors, and T-cell-macrophage-B-cell interactions in the antibody response, 486-489
- T helper cells—
 cell interactions in the induction of, 485-486
 T-T-cell interactions in the induction of, 486
- Tolerance—
 self—
 and autoimmunity, new ideas concerning, **539-548**
 differentiation alloantigens as models of, 542-543
 programmed, 543-544
 suppression of antibody responses and, 489-492
- T-T-cell interactions, in the induction of T helper cells, 486
- VIRAL infections, causing diseases, 597-599
- Viral models, for the pathogenesis of rheumatoid arthritis, 569-577
- Virus, specificity for, 551-552
- Viruses and intracellular bacteria, cell-mediated immunity to, **549-563**

DEX

carrier

arning,

ne an-
actors,

9
ctures,

cell-
in the

on of,

on of,

roncer-

bels of,

s and,

n of T

-599

sis of

, cell-

3